

## SEQUENCE LISTING

<110> Ruelle, Jean-Louis  
Thonnard, Joelle

<120> Novel Compounds

<130> BM45348

<150> PCT/EP00/00135

<151> 2000-01-10

<160> 16

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 804

<212> DNA

<213> Neisseria meningitidis

<400> 1

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gaagcccagg	acgaattgaa	cagcagcaat	tatacgcggg	ctgtcaagtt	atacgaaatc	180
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gcctattata	aagacgatga	aaaagacaag	gctctggcgg	caatcgaacg	cttccgcccgc	300
ctccatccgc	agcatccgaa	tatggattac	gcgctgtatc	tgcgcggtt	ggtgctgttc	360
aacgaagacc	agtccttctt	gaacaaactg	gcctcgcaag	actggtccga	ccgcgacccg	420
aaagccaacc	gcgaagtaac	ccaggcgttt	gcggaactcg	tccaacgctt	ccccaacagc	480
aaatacgccg	ccgatgcgac	cgcacgcatg	gtcaaaactg	tcgatgcact	gggcggaat	540
gaaatgtcgg	tggcgcgcta	ctacatgaaa	cgcggcgcac	atatcgccgc	cgccaaccgc	600
gccccaaaaa	ttatcggcag	ctacaaaaat	acacgctatg	tcgaagaatc	gctcgccatc	660
ttggaaacttg	cctacaaaaa	actcggcaaa	ccacagcttg	ccgccgatac	gcgccgcgtg	720
ttggaaacca	acttcccga	aagcccgttt	ttgacgcacg	cttggcagcc	cgacgatatg	780
ccttggtggc	gttactggca	ttaa				804

<210> 2

<211> 267

<212> PRT

<213> Neisseria meningitidis

<400> 2

Met	Lys	Lys	Ile	Leu	Leu	Thr	Val	Ser	Leu	Gly	Leu	Ala	Leu	Ser	Ala
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Cys	Ala	Thr	Gln	Gly	Thr	Val	Asp	Lys	Asp	Ala	Gln	Ile	Thr	Gln	Asp
			20					25			30				
Trp	Ser	Val	Glu	Lys	Leu	Tyr	Ala	Glu	Ala	Gln	Asp	Glu	Leu	Asn	Ser
		35				40					45				
Ser	Asn	Tyr	Thr	Arg	Ala	Val	Lys	Leu	Tyr	Glu	Ile	Leu	Glu	Ser	Arg
	50				55					60					
Phe	Pro	Thr	Ser	Arg	His	Ala	Arg	Gln	Ser	Gln	Leu	Asp	Thr	Ala	Tyr
65				70				75			80				
Ala	Tyr	Tyr	Lys	Asp	Asp	Glu	Lys	Asp	Lys	Ala	Leu	Ala	Ala	Ile	Glu
			85					90			95				
Arg	Phe	Arg	Arg	Leu	His	Pro	Gln	His	Pro	Asn	Met	Asp	Tyr	Ala	Leu
			100				105				110				
Tyr	Leu	Arg	Gly	Leu	Val	Leu	Phe	Asn	Glu	Asp	Gln	Ser	Phe	Leu	Asn
	115					120					125				
Lys	Leu	Ala	Ser	Gln	Asp	Trp	Ser	Asp	Arg	Asp	Pro	Lys	Ala	Asn	Arg

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      130      135      140
Glu Val Thr Gln Ala Phe Ala Glu Leu Val Gln Arg Phe Pro Asn Ser
145      150      155
Lys Tyr Ala Ala Asp Ala Thr Ala Arg Met Val Lys Leu Val Asp Ala
      165      170      175
Leu Gly Gly Asn Glu Met Ser Val Ala Arg Tyr Tyr Met Lys Arg Gly
      180      185      190
Ala Tyr Ile Ala Ala Ala Asn Arg Ala Gln Lys Ile Ile Gly Ser Tyr
      195      200      205
Gln Asn Thr Arg Tyr Val Glu Glu Ser Leu Ala Ile Leu Glu Leu Ala
      210      215      220
Tyr Gln Lys Leu Gly Lys Pro Gln Leu Ala Ala Asp Thr Arg Arg Val
225      230      235      240
Leu Glu Thr Asn Phe Pro Lys Ser Pro Phe Leu Thr His Ala Trp Gln
      245      250      255
Pro Asp Asp Met Pro Trp Trp Arg Tyr Trp His
      260      265

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<210> 3  
 <211> 1404  
 <212> DNA  
 <213> Neisseria meningitidis

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<400> 3
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tgcaccatga ttccccaata cgagcagccc aaagtcgaag ttgccgaaac gtttaaaaac      120
gataccgccg acagcggcat ccgtgcggtc gatttaggtt ggcatgacta ttttgccgac      180
ccgcgcctgc aaaagctgat cgacatcgca ctcgagcgca ataccagttt gcgtaccgcc      240
gtattgaaca gcgaaatcta ccgcaaacaa tacatgattg agcgcaacaa cctcctgccc      300
acgcttgccg ccaatgcgaa cggctcgcgc caaggcagct tgagcggcgg caatgtcagc      360
agcagctaca atgtcggact ggggtgcggca tcttacgaac tcgacctgtt cggacgcgtc      420
cgcagcagca gcgaagcagc actgcaaggc tattttgcaa gtgtcgccaa ccgcgatgcg      480
gcacatttga gcctgattgc caccgttgcc aaagcctatt tcaacgaacg ttatgccgaa      540
gaagcgatgt ctttggcgca gcgtgttttg aaaacgcgcg aggaaaccta caagctgtcc      600
gaattacgtt acaaggcagg cgtgatttcc gccgtcgccc tacgtcagca ggaagccctg      660
atcgaatctg ccaaagccga ttatgcccat gccgcgcgca gccgcgaaca ggcgcgcaat      720
gccttggcaa ccttgattaa ccaaccgata cccgaagacc tgccctgccg tttgccgctg      780
gacaagcagt tttttgttga aaaactgccg gccggtttga gttccgaagt attgctcgac      840
cgtcccgata tccgtgctgc cgaacacggc ctcaaacagg caaacgccaa tatcggtgcg      900
gcacgcgccg cctttttccc atccatccgc ctgaccggaa ccgtcggtac gggttctgcc      960
gaattgggtg ggttgttcaa aagcggcacg ggcgtttggt cgttcgcgcc gtctattacc     1020
ctgccgattt ttacctgggg tacgaacaaa gccaaccttg atgtagccaa gctgcgccaa     1080
caggcacaaa tcgttgccca tgaagccgcc gtccaatccg catttcaaga cgtggcaaac     1140
gcattggcgg cgcgcgagca gctggataaa gcctatgacg ctttaagcaa acaaagccgc     1200
gcctctaaag aggcgttgcg cttggtcggc ctgcgttaca agcacggcgt atccggcgcg     1260
ctcgacttgc tcgatgcgga acgcagcagc tatgcggcgg aggggtgcggc tttgtcggca     1320
caactgaccc gcgccgaaaa ccttgccgat ttgtacaagg cactcggcgg cggtattgaaa     1380
cgggataccc aaaccgacaa ataa

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<210> 4  
 <211> 467  
 <212> PRT  
 <213> Neisseria meningitidis

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<400> 4
Met Asp Thr Thr Leu Lys Thr Thr Leu Thr Ser Val Ala Ala Ala Phe
  1      5      10      15
Ala Leu Ser Ala Cys Thr Met Ile Pro Gln Tyr Glu Gln Pro Lys Val
      20      25      30
Glu Val Ala Glu Thr Phe Lys Asn Asp Thr Ala Asp Ser Gly Ile Arg
      35      40      45
Ala Val Asp Leu Gly Trp His Asp Tyr Phe Ala Asp Pro Arg Leu Gln

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      50      55      60
Lys Leu Ile Asp Ile Ala Leu Glu Arg Asn Thr Ser Leu Arg Thr Ala
65      70      75      80
Val Leu Asn Ser Glu Ile Tyr Arg Lys Gln Tyr Met Ile Glu Arg Asn
      85      90      95
Asn Leu Leu Pro Thr Leu Ala Ala Asn Ala Asn Gly Ser Arg Gln Gly
      100      105      110
Ser Leu Ser Gly Gly Asn Val Ser Ser Ser Tyr Asn Val Gly Leu Gly
      115      120      125
Ala Ala Ser Tyr Glu Leu Asp Leu Phe Gly Arg Val Arg Ser Ser Ser
      130      135      140
Glu Ala Ala Leu Gln Gly Tyr Phe Ala Ser Val Ala Asn Arg Asp Ala
145      150      155      160
Ala His Leu Ser Leu Ile Ala Thr Val Ala Lys Ala Tyr Phe Asn Glu
      165      170      175
Arg Tyr Ala Glu Ala Met Ser Leu Ala Gln Arg Val Leu Lys Thr
      180      185      190
Arg Glu Glu Thr Tyr Lys Leu Ser Glu Leu Arg Tyr Lys Ala Gly Val
      195      200      205
Ile Ser Ala Val Ala Leu Arg Gln Gln Glu Ala Leu Ile Glu Ser Ala
      210      215      220
Lys Ala Asp Tyr Ala His Ala Ala Arg Ser Arg Glu Gln Ala Arg Asn
225      230      235      240
Ala Leu Ala Thr Leu Ile Asn Gln Pro Ile Pro Glu Asp Leu Pro Ala
      245      250      255
Gly Leu Pro Leu Asp Lys Gln Phe Phe Val Glu Lys Leu Pro Ala Gly
      260      265      270
Leu Ser Ser Glu Val Leu Leu Asp Arg Pro Asp Ile Arg Ala Ala Glu
      275      280      285
His Ala Leu Lys Gln Ala Asn Ala Asn Ile Gly Ala Ala Arg Ala Ala
      290      295      300
Phe Phe Pro Ser Ile Arg Leu Thr Gly Thr Val Gly Thr Gly Ser Ala
305      310      315      320
Glu Leu Gly Gly Leu Phe Lys Ser Gly Thr Gly Val Trp Ser Phe Ala
      325      330      335
Pro Ser Ile Thr Leu Pro Ile Phe Thr Trp Gly Thr Asn Lys Ala Asn
      340      345      350
Leu Asp Val Ala Lys Leu Arg Gln Gln Ala Gln Ile Val Ala Tyr Glu
      355      360      365
Ala Ala Val Gln Ser Ala Phe Gln Asp Val Ala Asn Ala Leu Ala Ala
      370      375      380
Arg Glu Gln Leu Asp Lys Ala Tyr Asp Ala Leu Ser Lys Gln Ser Arg
385      390      395      400
Ala Ser Lys Glu Ala Leu Arg Leu Val Gly Leu Arg Tyr Lys His Gly
      405      410      415
Val Ser Gly Ala Leu Asp Leu Leu Asp Ala Glu Arg Ser Ser Tyr Ala
      420      425      430
Ala Glu Gly Ala Ala Leu Ser Ala Gln Leu Thr Arg Ala Glu Asn Leu
      435      440      445
Ala Asp Leu Tyr Lys Ala Leu Gly Gly Gly Leu Lys Arg Asp Thr Gln
450      455      460
Thr Asp Lys
465

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&lt;210&gt; 5

&lt;211&gt; 420

&lt;212&gt; DNA

&lt;213&gt; Neisseria meningitidis

&lt;400&gt; 5

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atgaaaaaac ttctaattgat aaccctcacc ggtatgcttg cagcttgtgc aacaggtgtc
aatgtcggcc ggttgatggt tgaaatgccg cagggagaac gttctgtcgt tgtgcaggtt

```

60  
120

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cccgcgacaa ataaccgcgt ttccgatacg gtagctgtcg gaatgattaa aacatccggt      180
tcgccttcgg catcaaatat gattgaaatg ctccggcgcg acaatatcaa cgtcggcggt      240
gtgggaagca gccaaatgct taataaggcg accgcacttt attccttaaa ccatgcaaag      300
aaagtcggaa ataatgtcag tgtttatatg atgggcgaca gcgaaagtga caaggccgat      360
ttggaaaacg cggcaaatgc caaaaatatc aaattgcatt atttctttaa ccaaaaataa      420

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&lt;210&gt; 6

&lt;211&gt; 139

&lt;212&gt; PRT

&lt;213&gt; Neisseria meningitidis

&lt;400&gt; 6

```

Met Lys Lys Leu Leu Met Ile Thr Leu Thr Gly Met Leu Ala Ala Cys
 1          5          10          15
Ala Thr Gly Val Asn Val Gly Arg Leu Met Val Glu Met Pro Gln Gly
          20          25          30
Glu Arg Ser Val Val Val Gln Val Pro Ala Thr Asn Asn Pro Leu Ser
          35          40          45
Asp Thr Val Ala Val Gly Met Ile Lys Thr Ser Gly Ser Pro Ser Ala
          50          55          60
Ser Asn Met Ile Glu Met Leu Gly Ala Asp Asn Ile Asn Val Gly Val
          65          70          75          80
Val Gly Ser Ser Gln Met Leu Asn Lys Ala Thr Ala Leu Tyr Ser Leu
          85          90          95
Asn His Ala Lys Lys Val Gly Asn Asn Val Ser Val Tyr Met Met Gly
          100          105          110
Asp Ser Glu Ser Asp Lys Ala Asp Leu Glu Asn Ala Ala Asn Ala Lys
          115          120          125
Asn Ile Lys Leu His Tyr Phe Phe Asn Gln Lys
          130          135

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&lt;210&gt; 7

&lt;211&gt; 516

&lt;212&gt; DNA

&lt;213&gt; Neisseria meningitidis

&lt;400&gt; 7

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atgaaaaatca aacaaatcgt caaacccgggc ttggcagtat tggcggcggg cggttctgtct      60
gcctgcgcaa ccaaaagcaa cgtcaaagcc gacggaacga ccgacaatcc gggttttccc      120
aaaccctatt ccgtaacgct cgacaacaat cgcggtacat tcccgacctg tgacgaattg      180
gacttgatgc gtcccgggtct gaccaaagac gacatctaca aaatcctggg tcgtccgcat      240
tacgacgaag gtatgtacgg cgtgcgcgaa tgggattatc tgttccactt ccacaccccg      300
ggcgtaggca tcgaccctga aaacacttcc ggcgtagaag gcattaccac ctgtcaatac      360
aaaattatatt tcgataaaga caaatttgcc cgcagcttct actggaaacc cgtcttcccg      420
aaagatgccg cctgtccgcc gcccgacccc aaagccgagc cgcaagtcac catccgcgaa      480
atcgtgcccg ccaaacccaa acgcatccgc caataa      516

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&lt;210&gt; 8

&lt;211&gt; 171

&lt;212&gt; PRT

&lt;213&gt; Neisseria meningitidis

&lt;400&gt; 8

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Met Lys Ile Lys Gln Ile Val Lys Pro Gly Leu Ala Val Leu Ala Ala
 1          5          10          15
Gly Val Leu Ser Ala Cys Ala Thr Lys Ser Asn Val Lys Ala Asp Gly
          20          25          30
Thr Thr Asp Asn Pro Val Phe Pro Lys Pro Tyr Ser Val Thr Leu Asp
          35          40          45
Asn Asn Arg Gly Thr Phe Pro Thr Tyr Asp Glu Leu Asp Leu Met Arg
          50          55          60
Pro Gly Leu Thr Lys Asp Asp Ile Tyr Lys Ile Leu Gly Arg Pro His

```

```

65          70          75          80
Tyr Asp Glu Gly Met Tyr Gly Val Arg Glu Trp Asp Tyr Leu Phe His
85
Phe His Thr Pro Gly Val Gly Ile Asp Pro Glu Asn Thr Ser Gly Val
100
Glu Gly Ile Thr Thr Cys Gln Tyr Lys Ile Ile Phe Asp Lys Asp Lys
115
Phe Ala Arg Ser Phe Tyr Trp Asn Pro Val Phe Pro Lys Asp Ala Ala
130
Cys Pro Pro Pro Ala Pro Lys Ala Glu Pro Gln Val Ile Ile Arg Glu
145
Ile Val Pro Ala Lys Pro Lys Arg Ile Arg Gln
165          170

```

<210> 9  
 <211> 816  
 <212> DNA  
 <213> Neisseria meningitidis

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<400> 9
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caggctaaag aacaaaccag tttcaacaat cccgagccaa tgacaggatt tgaacatacg      180
gttacatttg attttcaggg caccaaaatg gttatcccct atggctatct tgcacgggat      240
acgcaagaca atgccacaaa atggctttcc gacacgcccg ggcaggatgc ttactccatt      300
aatttgatag agattagcgt ctattacaaa aaaaccgacc aaggctgggt tcttgagcca      360
tacaaccagc aaaacaaagc acactttatc caatttctac gcgacgggtt ggatagcgtg      420
gacgatattg ttatccgaaa agatgcgtgt agtttaagta cgactatggg agaaagattg      480
cttacttacg ggggttaaaaa aatgccatct gcctatcctg aatacgaggc ttatgaagat      540
aaaagacata ttcctgaaaa tccatatttt catgaatttt actatattaa aaaaggagaa      600
aatccggcga ttattactca tcggaataat cgaataaacc aaactgaaga agatagttat      660
agcactagcg taggttcctg tattaacggt ttcacggtac agtattaccc gtttattcgg      720
gaaaagcagc agctcacaca gcaggagttg gtaggttatc accaacaagt agagcaattg      780
gtacagagtt ttgtaaacia ttcaaataaa aaataa      816

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<210> 10  
 <211> 271  
 <212> PRT  
 <213> Neisseria meningitidis

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<400> 10
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1      5      10      15
Gly Ser Val Phe Thr Met Thr Ser Cys Glu Pro Val Asn Glu Lys Thr
20      25      30
Asp Gln Lys Ala Val Ser Ala Gln Gln Ala Lys Glu Gln Thr Ser Phe
35      40      45
Asn Asn Pro Glu Pro Met Thr Gly Phe Glu His Thr Val Thr Phe Asp
50      55      60
Phe Gln Gly Thr Lys Met Val Ile Pro Tyr Gly Tyr Leu Ala Arg Tyr
65      70      75      80
Thr Gln Asp Asn Ala Thr Lys Trp Leu Ser Asp Thr Pro Gly Gln Asp
85      90      95
Ala Tyr Ser Ile Asn Leu Ile Glu Ile Ser Val Tyr Tyr Lys Lys Thr
100      105      110
Asp Gln Gly Trp Val Leu Glu Pro Tyr Asn Gln Gln Asn Lys Ala His
115      120      125
Phe Ile Gln Phe Leu Arg Asp Gly Leu Asp Ser Val Asp Asp Ile Val
130      135      140
Ile Arg Lys Asp Ala Cys Ser Leu Ser Thr Thr Met Gly Glu Arg Leu
145      150      155      160
Leu Thr Tyr Gly Val Lys Lys Met Pro Ser Ala Tyr Pro Glu Tyr Glu

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				165					170					175			
Ala	Tyr	Glu	Asp	Lys	Arg	His	Ile	Pro	Glu	Asn	Pro	Tyr	Phe	His	Glu		
			180					185					190				
Phe	Tyr	Tyr	Ile	Lys	Lys	Gly	Glu	Asn	Pro	Ala	Ile	Ile	Thr	His	Arg		
		195					200					205					
Asn	Asn	Arg	Ile	Asn	Gln	Thr	Glu	Glu	Asp	Ser	Tyr	Ser	Thr	Ser	Val		
		210				215					220						
Gly	Ser	Cys	Ile	Asn	Gly	Phe	Thr	Val	Gln	Tyr	Tyr	Pro	Phe	Ile	Arg		
225					230				235						240		
Glu	Lys	Gln	Gln	Leu	Thr	Gln	Gln	Glu	Leu	Val	Gly	Tyr	His	Gln	Gln		
				245					250					255			
Val	Glu	Gln	Leu	Val	Gln	Ser	Phe	Val	Asn	Asn	Ser	Asn	Lys	Lys			
			260					265					270				

&lt;210&gt; 11

&lt;211&gt; 717

&lt;212&gt; DNA

&lt;213&gt; Neisseria meningitidis

&lt;400&gt; 11

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cctgtttccc	gcaatattca	ggatatgcgg	cccgaaccgc	aggcagaggc	aggtagttcg	120
gacgctattc	cctatcccgt	tcccactctg	caagaccggt	tggattatct	ggaaggcaca	180
ctcgtccgcc	tgtcgaacga	agtggaaacc	ttaaaccggca	aagtcaaagc	actggagcat	240
gcgaaaacac	acccttccgg	tagggcatat	gtccaaaaaac	tcgacgaccg	caagttgaaa	300
gagcattacc	tcaataccga	aggcggcgagc	gcatccgcac	ataccgtcga	aaccgcacaa	360
aacctctaca	atcaggcaact	caaacactat	aaaagcggca	ggttttctgc	cgcagccgcc	420
ctgttgaaag	gcgcgggacgg	aggcgacggc	ggcagcatcg	cgcaacgcag	tatgtacctg	480
ttgctgcaaa	gcagggcgcg	tatgggcaac	tgcgaaatccg	tcacgaaaat	cggagggcgt	540
tacgccaacc	gtttcaaaga	cagcccaacc	gcgcccgaag	ccatgttcaa	aatcggcgaa	600
tgccaataca	ggttgacagca	gaaagacatt	gcaagggcaa	cttggcgcag	cctgatacag	660
gcttacccca	gcagcccggc	ggcaaaacgc	gccgccgcag	ccgtacgcaa	acgatag	717

&lt;210&gt; 12

&lt;211&gt; 238

&lt;212&gt; PRT

&lt;213&gt; Neisseria meningitidis

&lt;400&gt; 12

Met	Lys	Thr	Lys	Leu	Pro	Leu	Phe	Ile	Ile	Trp	Leu	Ser	Val	Ser	Ala
1				5					10					15	
Ala	Cys	Ser	Ser	Pro	Val	Ser	Arg	Asn	Ile	Gln	Asp	Met	Arg	Pro	Glu
			20					25				30			
Pro	Gln	Ala	Glu	Ala	Gly	Ser	Ser	Asp	Ala	Ile	Pro	Tyr	Pro	Val	Pro
		35				40					45				
Thr	Leu	Gln	Asp	Arg	Leu	Asp	Tyr	Leu	Glu	Gly	Thr	Leu	Val	Arg	Leu
		50			55					60					
Ser	Asn	Glu	Val	Glu	Thr	Leu	Asn	Gly	Lys	Val	Lys	Ala	Leu	Glu	His
65				70				75						80	
Ala	Lys	Thr	His	Pro	Ser	Gly	Arg	Ala	Tyr	Val	Gln	Lys	Leu	Asp	Asp
			85					90					95		
Arg	Lys	Leu	Lys	Glu	His	Tyr	Leu	Asn	Thr	Glu	Gly	Gly	Ser	Ala	Ser
			100					105					110		
Ala	His	Thr	Val	Glu	Thr	Ala	Gln	Asn	Leu	Tyr	Asn	Gln	Ala	Leu	Lys
		115				120						125			
His	Tyr	Lys	Ser	Gly	Arg	Phe	Ser	Ala	Ala	Ala	Ala	Leu	Leu	Lys	Gly
	130			135						140					
Ala	Asp	Gly	Gly	Asp	Gly	Gly	Ser	Ile	Ala	Gln	Arg	Ser	Met	Tyr	Leu
145				150				155						160	
Leu	Leu	Gln	Ser	Arg	Ala	Arg	Met	Gly	Asn	Cys	Glu	Ser	Val	Ile	Glu
			165					170						175	
Ile	Gly	Gly	Arg	Tyr	Ala	Asn	Arg	Phe	Lys	Asp	Ser	Pro	Thr	Ala	Pro

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      180      185      190
Glu Ala Met Phe Lys Ile Gly Glu Cys Gln Tyr Arg Leu Gln Gln Lys
      195      200      205
Asp Ile Ala Arg Ala Thr Trp Arg Ser Leu Ile Gln Ala Tyr Pro Ser
      210      215      220
Ser Pro Ala Ala Lys Arg Ala Ala Ala Val Arg Lys Arg
      225      230      235

```

&lt;210&gt; 13

&lt;211&gt; 1176

&lt;212&gt; DNA

&lt;213&gt; Neisseria meningitidis

&lt;400&gt; 13

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gtgttttaaag tgaaatttta tattcggtcac gcagtattat tattgtgtgg aagtttaatt      60
gtaggatgct ctgcgattcc ttcatcaggc cccagcgcaa aaaaaattgt ctctttaggg      120
caacaatctg aagttcaaat tcctgaagtg gagctgattg atgtgaatca tacggttgct      180
cagttattat ataaggctca gataaatcag tcattcactc agtttggcga tggttatgct      240
tcggctggta cgctaaatat tggatgata ttggatatta tgatttggga agcgccgccg      300
gcagtattgt ttggtggtgg cctttcttcg atgggctcgg gtagtgcgca tcaaactaag      360
ttgccagagc agttggtcac ggcacgtggt acggtttctg tgccgtttgt tggcgatatt      420
tcggtggtcg gtaaacgcc tggtcagggt caggaaatta tttaaaggccg cctgaaaaaa      480
atggccaatc agccacaagt gatggtgctg ttggtgcaga ataatgcggc gaatgtgtcg      540
gtgattcgtg ctgggaatag tgtgcgtatg ccgctgacgg cagccggtga gcgtgtgttg      600
gatgcggtgg ctgcggtagg tggttcaacg gcaaatgtgc aggatacgaa tgtgcagctg      660
acacgtggca atgtagtacg aactgttgcc ttggaagatt tagttgcaa tccgcgacaa      720
aatattttgc tgcgtcgcgg tgatgtggtt accatgatta ccaatcccta tacctttacg      780
tctatgggtg cgggtggggag aacacaagaa atcggttttt cagccagagg cttatcgctt      840
tctgaagcca ttggccgtat gggcggtttg caagatcgcc gttctgatgc gcgtggtgtg      900
tttgtgttcc gctatacgcc attggtggaa ttgccggcag aacgtcagga taaatggatt      960
gctcaagggt atggcagtga ggcagagatt ccaacggat atcgtgtgaa tatggctgat      1020
gcgcattcgc tattttctat gcagcgcttt cctgtgaaga ataaagatgt attgtatgtg      1080
tcgaatgcgc cgttggctga agtgcagaaa ttcttgcgt ttgtgttctc gccggttacc      1140
agtggcgcgga acagtattaa taatttaact aattaa      1176

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&lt;210&gt; 14

&lt;211&gt; 391

&lt;212&gt; PRT

&lt;213&gt; Neisseria meningitidis

&lt;400&gt; 14

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Met Phe Lys Val Lys Phe Tyr Ile Arg His Ala Val Leu Leu Leu Cys
  1      5      10      15
Gly Ser Leu Ile Val Gly Cys Ser Ala Ile Pro Ser Ser Gly Pro Ser
      20      25      30
Ala Lys Lys Ile Val Ser Leu Gly Gln Gln Ser Glu Val Gln Ile Pro
      35      40      45
Glu Val Glu Leu Ile Asp Val Asn His Thr Val Ala Gln Leu Leu Tyr
      50      55      60
Lys Ala Gln Ile Asn Gln Ser Phe Thr Gln Phe Gly Asp Gly Tyr Ala
      65      70      75      80
Ser Ala Gly Thr Leu Asn Ile Gly Asp Val Leu Asp Ile Met Ile Trp
      85      90      95
Glu Ala Pro Pro Ala Val Leu Phe Gly Gly Gly Leu Ser Ser Met Gly
      100      105      110
Ser Gly Ser Ala His Gln Thr Lys Leu Pro Glu Gln Leu Val Thr Ala
      115      120      125
Arg Gly Thr Val Ser Val Pro Phe Val Gly Asp Ile Ser Val Val Gly
      130      135      140
Lys Thr Pro Gly Gln Val Gln Glu Ile Ile Lys Gly Arg Leu Lys Lys
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[illegible]

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Ala Asn Pro Asp Lys Val Tyr Arg Val Ala Ser Asn Ala Glu Phe Ala



